POLITECNICO DI TORINO

Master's degree in Engineering and Management

Department of Management and Production Engineering

Master's degree Thesis

ESG Investment and its Impacts on Equity Holders, Creditors and Other Institutional Investors

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Abstract

Environmental, Social, and Governance (ESG) investments are becoming increasingly popular as more and more investors are looking for ways to align their investments with their values and make a positive impact on the world. This study aims to investigate the impact of ESG investments on investors and explore the factors that influence their decision-making process.

The research will be conducted using a mixed-methods approach, incorporating both qualitative and quantitative data analysis. The qualitative data will be collected through in-depth interviews with investors and expert practitioners in the ESG investment field as well as study of previous literature to form a theoretical framework of the subject. The quantitative data will be obtained through gathering data of a larger sample of financial metrics and CSR to provide a more comprehensive understanding of investors' attitudes and behaviours through research papers, online ESG scores and it's impacts on the investment decisions of said investors.

The findings of this study will provide valuable insights into the motivations and attitudes of investors towards ESG investments, and the role that these investments play in their decision-making process. The results will also contribute to the growing body of literature on ESG investing and its impacts on investors and the financial markets more broadly.

In conclusion, this thesis will contribute to a better understanding of the relationship between ESG investments and investor behaviour, and the factors that influence their investment decisions. The insights generated by this research will be valuable for investors, asset managers, and policymakers as they look to promote the growth and development of ESG investing in the years to come.

Acknowledgements

I would like to express my most sincere gratitude to Prof.ssa Elisa Ughetto of the Department of Management and Production Engineering (DIGEP) of Politecnico di Torino, whose guidance and constant support have been available throughout this course.

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1. Introduction

We have seen a vast increase in the case of ethical considerations made by investors during their decisions to add to their portfolios in the recent years. Sustainable policies seem to be a top priority for any investor these days as details such as climate action, clean water, government partnerships are what are first looked at. As such there is an increasing number of investors that show concerns regarding the sustainable policies of the companies they invest in, leading to what is known as Socially Responsible Investing.

In today's day and age, the investors don't just look at financial return but also the ethical point therefore being observant of the impact that it might have on society. What this encapsulates is that there needs to be a framework of responsibility under which issues of environment, social and governance are understood and addressed.

How do the "Socially Responsible Investments" differ from the conventional? The answer is in the fact that Socially Responsible Investments apply a set of investment screens to select and exclude stock based on the three criteria that were mentioned above. The rise of sustainability issues in the world has been aide to the growth of the sector. There has been an increase in research on this topic in the recent years. Most of it seeks to understand whether or if these practices in conjunction with the regular investment decision making process bears an additional cost financially or affects any performance metric of the portfolio's financial aspect.

The results to answer the above questions might vary due to a multitude of reasons including the type of screening applied, the type of data comparison model applied by the author or researcher, the timeline of investment undertaken, etc. Some research seems to indicate that the consideration of SRI is neither a weakness nor a strength (Revelli & Viviani, 2015), while others arrive at positive outcomes from the inclusion of ESG criteria (Zhongfei Chen, Guangxia Xiem, 2022).

It is important to note however that, non-financial factors like these being added as a factor of investment decision making, contradicts the traditional finance theories, as a well-diversified portfolio will help maximizing returns according to most of them (Harry M. Markowitz, 1959). And said will be a point of conflict because of the incorporation of these non-financial standards. Thus, a very prominent point of interest arises for any investor which would be how to maximize the gain out of using non-financial parameters like ESG.

This thesis aims to make use of previous literature to study this intersection of ESG and financial performance and how it would affect investment decisions that are taken by equity holders and creditors and whether or not it would increase investor performance. Hoping to bridge the gap in understanding of the impacts of companies with good social responsibility and those with bad ones. Providing evidence whether investments based on ESG criteria can create or not profitable returns, thereby providing profit seeking investors more evidence.

1.1 Problem Statement

ESG investing has been a hot topic in the recent years. Thus, leading to a growth in the number of studies that have been undertaken and the research that has been put out, and the results seems to suggest that there is proof of corelations between the performance of investment and ESG criteria considerations. This has been of substantial aide to the investors during the process of investment decisions for their portfolio, or management/expansion projects for their portfolios. This thesis would like to extend on the existing theory that ESG investments can be a helpful aspect to the strategy of portfolio selection.

The primary focus would be the financial process of an investor's portfolio and that in the perfect world of finances the relationships between ESG investing and financial performances would provide adequate results to attract investors to further provide and invest in companies that are pro ESG criteria. Even though, there have been substantial results in this domain viewed through multiple sources and studies, there will however always be a degree of scepticism from the conventional investment community.

Research on this field has been ongoing for the past 50 years and there have been multiple publishings by scholars including several empirical and review studies. The primary objective of the paper is to provide an answer to

"What is the impact of ESG criteria on investors' portfolio performance and thus, their decision-making process?"

To answer this question, it is important to form an understanding of CFP (Corporate Financial Performance) in relation with the ESG criteria thus providing long term investors with a deeper understanding of the concept and a reliable reference that is aligned with the "society beneficial" aspect ESG.

Various studies and reports have been published on this topic and the older studies come to a similar conclusion that the returns of companies investing in ESG criteria do not vary by a lot to traditional companies (Rob Bauer, 2004). However, as the interest in ESG investing has been growing exponentially in the recent years the number of studies has as well and the newer studies seem to point out that companies with a high ESG score yield better results than those with a low score. (Dean Emerick, esgthereport.com, 2022).

This paper attempts to further in on the results of the previous literature and studies available by making use of the European market with references from the US market. This enables us to have the required analytical and strategic foundation to obtain a well underwritten solution to our main question. In order to have a thorough understanding of the main question we first need to answer the sub question of

“How do investors perceive the ESG criteria, and does it encourage investing?”

By studying this strategy from a theoretical point of view we can understand that the filtering of portfolios is not as strict as the real world ESG criteria. We can even say that it is more similar to the modern portfolio theory as it has a higher level of diversity. However, in the real world the investor would want to have as much empirical evidence as possible to make decisions about investments for one’s portfolio.

Another point we have to focus on is that is it beneficial to be focused on a single performance metric as in solely focused on ESG criteria performances?

These following questions will help us establish the foundation needed to make a well-rounded study that answers the primary question of this thesis along with also providing us with knowledge of how far off the companies are on the opposite ends of the spectrum and will provide investors who are looking for the highest returns with a better understanding of ESG criteria in their decision-making process.

2. Literature Review

2.1 Past literature on association between CFP and ESG

There has been enough empirical evidence to form a link between CFP and CSR. The idea of sustainable development isn't something that is new, and it goes as far back as the Brundtland Report of 1887, also known as Our Common Future, which defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

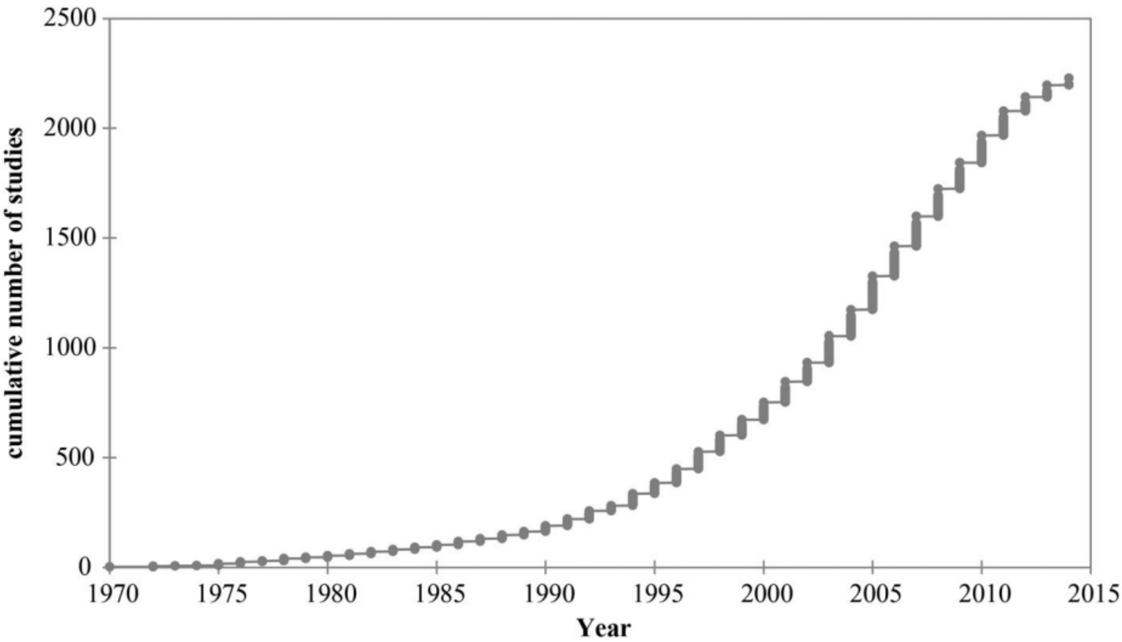

Figure 1: Estimate on number of empirical studies on ESG-CFP research done over time.

Trying to find a correlation between Corporate Financial Performance (CFP) and ESG criteria has been around for a while and isn't something that just popped up. It can be traced back as far as the 90's. There is abundant empirical evidence going through whether or not the social performance and perception of a company affects its financial performance and most (roughly 90%) of them find a favourble ESG-CFP relation. (Freude, Busch, and Bassen, 2015)

It is however important to note that the findings obtained might still be insufficient as factors such as publication bias, difference in statistical approaches, inconsistencies in data collection and measurement as the measurement techniques for CFP and social performance might vary.

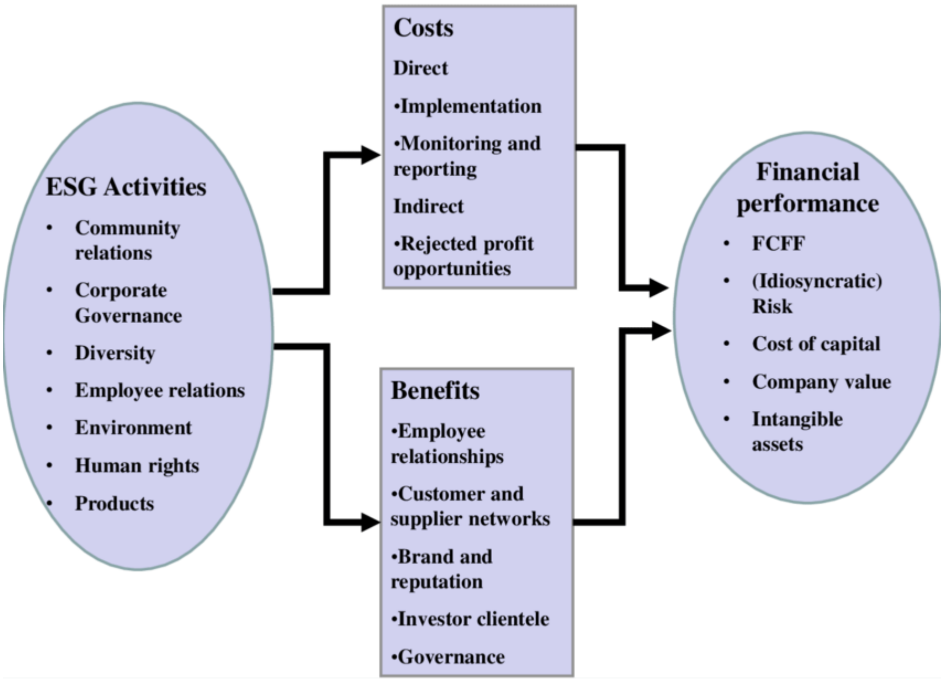

Figure 2: Costs and benefits of an ESG strategy (Cajias, 2011)

Although, the recent studies all seem to point in the general direction of a positive relationship between ESG performance of a company and its financial performance. Prior to the 1990's the level of importance placed on ESG criteria was rather low compared to the period latter to it (van Beurden and Tobias Gösling, 2008).

An article on the impacts of ESG criteria on corporate financial efficiency dealing with the various concerns of ESG and what it's disclosure would mean shows that being transparent with the ESG criteria is more likely linked to a positive impact with corporate efficiency whilst also leading to increase in financial metrics such as ROA and market value.

On the break of this the companies that were issuing sustainability or integrated reports have increased to 9000 as of 2016 from less than 20 which was in the 90's (Amel Zadeh, Serafeim, 2018).

The environmental aspect of the ESG criteria seems to bear the most impact on the financial activities of a company. According to an article on *pharmaceutical-technology.com,* based on a small sample size of approx. 250 numbers, 45% of votes cast were in favour of environmental factors followed by 37% in favour of corporate governance and finally 18% towards social factors.

Below is a table that summarises the key findings in notable literatures that were written based on how investors would perceive disclosure of ESG data, and if it bears impact on CFP.

Point of Study	Literature	Findings and Results
SRI & CFP	"The Effect of Socially Responsible Investing on Portfolio Performance" (Alexander Kempf, Peer Osthoff, 2007) *Centre for Financial Research, University of Cologne* *Year: 2007*	Research done on the question of: Does trading stocks based on SRI ratings lead to a performance better than the peers? Mix of high SRI and low SRI scores selected for portfolio. Stocks traded in the S&P 500 and DS 400 from 1992 to 2004 are analysed. **Results: Show that SRI ratings are valuable information for investors, and use of "positive screening approach" leads to higher-than-normal returns.**
Correlation between ESG disclosure and financial performance	"ESG disclosure and financial performance: Moderating role of ESG investors" (Zhongfei Chen, Guanxia Xie, 2022) *School of Economics, Jinan University, Guangzhou* *Year: 2022*	Chinese listed companies from 2000-2020 studied for their financial performance using ESG ratings of Bloomberg and applying the staggered DID method to address endogeneity issues. **Results: Effect of ESG disclosure is greater in companies with ESG investors,**

		high media attention and agency costs. **Extended analysis results: ESG disclosure enhances financial performance by attracting ESG investors.**
ESG & CFP	"Do environmental, social, and governance activities improve corporate financial performance?" (Xie, Nozawa, Yagi, Fuji, Managi, 2018) *Kyushu University, Fukuoka, Japan* *Year: 2018*	The effect of ESG disclosure and ESG activities seem to bear a positive result on corporate financial performance. **Results: Most ESG's reveal a non-negative relationship with CFP.** **Any result that would contribute towards reduction of costs seem to bear the highest weight in the environmental section**

Table 1: Brief Elaboration on the studies made on the relationship between CFP and ESG

2.2 Market Financial Indicators & Accounting Financial Indicators and their Association to ESG

In the recent years sustainability has been on one of the key aspects of a lot of companies included in most of their yearly reports to show to the investors their stand and direction in ESG and SRI. And possibly add potentially available ESG minded investors. As shown in *Figure1*, the studies of CSP and CFP have vastly increased in the past years leading to investors demanding more data from the company for the benefit of their portfolios.

Figure 3: Showcasing the Sustainable Development Strategy put forth by the McKensie & Company in the ESG report of 2021.

According to a study conducted in 2006 the CFP of a company can be measured via 3 factors, which are the following,

i. Firm Value (Can be assessed through the Tobin Q)
ii. Financial Performance (Can be assessed through ROA, ROE)

and finally,

iii. Stock Market Returns (Can be assessed through the total returns of a company)

2.2.1 Correlation with Market Financial Indicators

There have been numerous studies done on what are the consequences of ESG criteria on market performance of a company.

A sample study was conducted on around 500 publicly traded companies in the United States S&P 500 from 2009-2018, that was based off of a linear regression model (Alareeni, Hamadan 2020), to find a correlation between financial performance with ESG disclosure.

The study made use of indices for ESG, EVN, CSR and CG and descriptive statistics such as the mean value, the standard deviation and skewness as independent variables to determine the dependent variable of Tobin's Q. The mean disclosure of ESG was found out to be around 33.6% for US based companies.

The results seemed to indicate a positive correlation found between the Tobin's Q and the CSR, environmental sustainability of a company. It showed that there is a significant positive impact upon ESG disclosure.

$$Perf_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 EVN_{it} + \beta_3 CSR_{it} + \beta_4 CG_{it} + \beta_5 FS_{it} + \beta_6 FL_{it} + \beta_7 AT_{it} + \beta_8 AG_{it} + \varepsilon_{it}$$

Formula 1: Linear regression model used.

However, the impact might also be due to the concern regarding ESG issues rather than strengths. Yet in any case, the drive for integration ESG activities into a company seems to benefit firm value even though it has not reached its peak yet. There is dual nature of ESG criteria on the short term that is with respect to the costs and benefits.

2.2.2 Correlation with Accounting Financial Indicators

In a report of “Are Sustainable Companies More Valued” that was published on Schroders by Duncan Lamont, there is a conclusion that says that sustainable policies indeed provide a positive effect towards valuation of a company.

One of the approaches stated that the objective was to make it so that investing would be of a higher expense for bad companies to raise money, thus making it harder for them grow and prosper as investors to turn their attention towards “well behaved” companies. This would encourage them to mend their ways to better match their good policy peers with better sustainable investing policies.

Another approach suggests that there is money to be made by investing in companies with good sustainability and avoiding companies with bad ones. This is furthered by facts like changing regulations, investor behaviour/ preferences and such. Because the market isn’t really apt at working out the likelihood, impact and timescale of these risks actually playing a part.

However, the common takeaway from both these theories is that if companies trade on good sustainability terms they can raise capital more cheaply.

Following this there is empirical evidence of green companies and high valuation (Sah, Miller and Ghosh, 2013) given by their Tobin’s Q. It is also important to note that companies that have certified ESG ratings or are partners have a higher ROA than companies that are less sustainable. To put it into numbers at the level of returns alone, according to a panel study conducted from 2005-2010 the green corporates have a return that is 5.68% higher annually than those who are ae not green. It was also found that if there was an increase in the share of sustainable properties in the portfolio by 1%, the increase is ROA is by 3.5% for firms that have a LEED certification firms and by 0.31 % for firms that have been certified by Energy Star

Moreover, sustainable development policies have a favourable impact on ROA and ROE ranging from 10-16%, according to the report "Does Good ESG contribute to Improved Financial Performance of Companies" (De Lucia, 2020). Similar results were reached for energy- and water-efficient strategies, and "Environmental Innovation," which increased ROA by 29%, was determined to have the biggest impact. Regarding governance, it was discovered that the average board tenure increased ROA by 12–17%, showing that investors would eventually come to value the knowledge and experience of the board representatives.

Point of Study	Literature	Findings & Results
ESG Relation to Market Performance & Financial Indicators	Sustainable Investing: Establishing Long Term Value & Performance (Fulton Kahn and Sharples, 2012)	Paper analysing studies in excess of 100 papers and closing examining 56 papers. **Results: Strong and positive correlation between CSR and ESG factors with CFP.** **Almost all the corporates with high ESG ratings outperform badly rated peers.**
	The Influence of Environmental, Social, and Governance (ESG) Disclosure on Firm Financial Performance. (Almeyda, Darmansya, 2019)	Studies focused on the countries that are the strongest economies in the world (G7). **Results: Environmental factor has a significant beneficial impact on the company's stock price.**
	Does Good ESG Lead to Better Financial Performances by Firms? Machine Learning and Logistic Regression Models of Public Enterprises in Europe (De Lucia, Pazienza, Bartlett, 2020)	Research on the points if or not ESG factors contribute to the CFP and its advancements through regression models powered by Machine Learning **Results: Most ROE and ROA performance is perfectly predicted through Machine Learning and Environmental factors have an outstanding positive impact, with Governance and social factors having a slightly positive however positive impact none the less.**

	Impact of ESG performance on firm value and profitability (Aydoğmus, Gülag and Ergun, 2022)	Analysing the effects of ESG on firm value and profitability from a sample size of 1720 firms from 2013-2021 to get a combined ESG score with firm value as a dependent variable. **Results: ESG combines score has a positive and significant impact on firm value and performance with social and governance factors having a higher impact than the environmental factor.**
	Analysis of corporate sustainability performance and corporate financial performance causal linkage in the Indian context (Jha and Ranjan, 2020) *Date: 2020*	Exploring the relationship between CSP and CFP for a sample group of 500 Indian firms from a time period of 2008-2018. **Results: CFP evaluated on both accounting (ROA, ROE) as well as marketing-based measures (Tobin's Q).** **CSP seen to be having a positive impact when measures with an E-score or ESG score in relation to ROA.** **The impact on Indian firms however not at the same level as the firms of the west**.

Table 2: Empirical Evidence on ESG with respect to Corporate Financial Indicators of Firms

2.2.3 Correlation with Stock Market Performance

Several studies that have previously examined the inter relation between ESG and the social performance based on the ESG score. Kempf and Oshtoff (2007) by making use of ESG rating provided by KLD Research and Analytics showed that by implementing a long-short style investment strategy of investing in companies that have a high SRI rating and selling stakes in companies with a low SRI rating, there was a higher-than-normal revenue generation from the time period of 1992-2004. A similar result was obtained by Statman and Glushkov (2009). When they made use of the ESG score ratings to study companies from 1992-2007 with the same long-short approach higher than normal returns were expected.

Borgers (2013) however observed that the initial outperformance was reduced after 2007 post the time period of the previous study and said that the higher returns were due to the fact the market had previously under reacted and that the markets had just correctly valued of initially undervalued positives of ESG.

The study titled "ESG & Stock Market Performance – An empirical study of link between ESG Performance and Companies" (Ismaili and Kjønes, 2021) studies in detail the ESG performance of Scandinavian companies and their stock performance between 2011-2020 concluded that the companies with a better ESG score were less exposed to systematic risk and therefore investors would demand a said risk premium for investing in poor ESG performance companies. Thereby increasing the cost of capital.

A short-term stock market reaction was recorded to ESG rating (Krüger, 2015) noted that there was a rise in stock price when there were efforts being made by the company related to managing prior social irresponsibility. Governance and Environmental screen focused studies also show the same result. Gompers (2003) notes that firms that have incorporated strong stakeholder rights have an increase in yearly stock return amounting to 8.5% higher than those with weak stake holder rights. The study also showed that the companies that have weak governance practices tend to underperform. However, like earlier stated the effects seems to have decreased over the years and are not as dramatic as before following 2000-2008.

What's more, Lins (2017) noted that firms with better ESG ratings performed better during the financial crisis of 2008/2009. Albuquerque (2019) put forth a hypothesis in which firms that had a high ESG performance had to deal with less price elasticity of demand as ESG acted as a product differentiation strategy.

2.3 Previous Literature Synopsis

From the literature that was studied for the observations made above as well to get more insight on the question posed in the problem statement these were the findings that were obtained. A brief insight on key findings found in the studies are as follows.

- In the aspect of market, the equity market was noted to be better receptive of the ESG criteria compared to the debt market.
- In terms of disclosure of ESG data it was found that moderate disclosure of ESG yields the highest benefit to the company.
- In terms of focus on individual parameters of E, S and G the environmental aspect seemed to be of the highest importance to shareholders according to most of the papers studied. The use of a third-party assessment that would validate the environmental aspect and hand a certain score as a metric was seen to be of high significance to the investors.
- Although ESG problems were given more weight than ESG strengths in terms of market financial indicators, a favourable correlation between ESG performance and the Tobin's Q and a company's stock price was seen.
- The same could be said for the accounting indicators as positive relationships were found in all the literature studied between ESG and ROA/ ROE.
- High ESG-rated funds could also be seen to be more reliant during economic downturns.

Based on all the observations made above, we can say that even though there has been sufficient literature and studies done on the correlations between CFP and ESG, there is still a lack of classification of the variables that have been studied. Also, there are a few weak links when it comes to the amount of study done on the relation between the different variables among themselves and to the financial variables.

This table makes use of previous literature and makes an attempt to summarize the different sustainability variables and the relation (if any) towards the financials of a company.

Corporate Financial Performance Variables / Sustainability Rating Variables	CFP Impact	Market Performance Indicators			Accounting Performance Indicators			
		Stock Price	Tobin Q	P/E	ROA	ROC	ROE	Cash Flow
Public Disclosure of ESG Ratings	√	N	√	N	√	√	N	N
Third Party Assessment for an ESG rating	√	N	N	N	N	N	N	N
Overall ESG Score	N	X	√	X	N	N	N	N
Environmental Performance Score (E-Score)	N	√	N	N	N	√	N	N
Company Policies Towards Sustainability	√	N	N	N	√	N	√	√
Lengthy Tenure of the Board	√	N	N	N	N	N	√	√

Table 3: Intersection of CFP and CSR variables being summarized from previous empirical studies.

Legend:

√: Positive Relationship

X: No Relationship

N: Insufficient study

2.4 Conclusion to Literature Review

We can view considerations and integration of ESG through different perspectives, whether it might be the ESG activities that have been inducted in the firm or through different targets that have been set forth by the firms for the ESG criteria and how much of it has been disclosed or even the different scoring methods that have been used. There have been various studies that see how various ESG criteria may affect the firm performance.

Based on the literatures that have been studied in this here literature review on the impact of different ESG criteria to different financial indicators the findings indicated that a significant amount of positive proof towards the correlation. However, the process of finding is still not finished and continues to evolve every day.

The varying results that have been produced through previous empirical evidence provides us with an opportunity to explore different hypothesis for the different views obtained.

Thus, thesis will be compiled of two main parts. The first part will help us set the theoretical foundation and provide us an insight about ESG investing, what its place is in European organisations as well as worldwide and the part it plays in setting strategies to reach sustainable finance goals.

The second part will focus on greenness indicators and sustainability scores with the aid of scores from MSCI, Refinitv and financial indicators in the aim of realising a relationship between the two.

3. Theoretical Overview

3.1 The Global Investment Market

An investment is a purchase made with an eye toward the future with the goal of generating income or accumulating wealth. Wealth management, securities brokerage, stock exchange services, and investment banking are the primary categories of investments. Investments done to ensure the security of wealth are referred to as wealth management. Online and offline modes are employed by end users who are in the B2B and B2C sectors. The Business Research Company recently released a number of new reports, including the investments research report. These reports include statistics on investments, such as the global market size for investments, regional shares, competitors' investments market shares, in-depth segments for investments, market trends and opportunities, and any other information one might need in order to gain a deeper understanding in the investments industry. Some of the key takeaways obtained from this article are listed below.

With a compound annual growth rate (CAGR) of 8.6%, the worldwide investments market increased from $3532.16 billion in 2022 to $3837.1 billion in 2023. This is keeping in mind the economic slowdown experienced from the COVID-19 pandemic as well as the ongoing Russia-Ukraine conflict. The resulting economic sanctions imposed by and on a number of nations, an increase in commodity prices, and disruptions in the supply chains have caused inflation in the prices of products and services and had an impact on numerous markets throughout the world. At a CAGR of 7.9%, the investment market is anticipated to reach $5193.94 billion in 2027.

Many wealth management firms are investing in big data analytics tools to generate insights that will help them strengthen and streamline existing service offerings and, ultimately, boost income. To provide insights into client segments, product penetration, and training program effectiveness, big data solutions are being put into practice. These technologies are being used to evaluate current and potential clients' propensity to buy different goods and services provided by a wealth management organization, as well as their lifetime worth, investment style, and capacity for taking risks. Additionally, they help wealth management firms monitor their operations, boost client acquisition and retention rates, boost sales, and provide real-time investing guidance.

Globally, wealth management companies are increasingly providing hybrid services to their clients, such as standardized and customized guidance. The demand for consistent and reliable answers among consumers is driving the need for standardization and personalization of guidance. In order to provide standardized advisory services while simultaneously preserving the granularity of their offerings with bespoke solutions, wealth management businesses are providing computer-driven studies in this respect.

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The investment market's largest region in 2022 was Western Europe. The investments market's second-largest region was North America. Asia-Pacific, Western Europe, Eastern Europe, North America, South America, the Middle East, and Africa are the regions covered in the investments market study.

The investment market is made up of profits made by businesses that engage in investment management activities including wealth management, stock trading, and securities underwriting. It only includes fees, commissions, or margins on the sums invested, not the value of the investments held, or the sum of money invested in a particular year. Although some investment businesses provide other financial services, the business models of the firms that make up the industry are used to classify it. The value of associated items sold by the service provider or incorporated into the service providing is included in the market value. Only items and services that are exchanged between parties or sold to final customers are covered.

3.2 EU Investment Market

Individuals and companies make an investment in order to grow wealth or fund future investments. Investors often sought out for places that are high-skilled and cost-effective as they have a direct link with generating higher returns and the EU has skill in plenty.

Inward investment plays a significant role for the investing nation and supports economic growth, job creation, and technological advancement.

The EU is one of the top destinations for incoming foreign direct investment (FDI) in the globe because it has one of the most transparent and open regimes in the world. As a result, FDI stocks held by investors from third countries in the EU total about €6.295 billion.

By making an investment in the EU, one gains access to a single market with 500 million consumers and numerous investment opportunities that are highly integrated. Investments are supported by EU law and the single market, which ensure the freedom to start a business, invest in corporations, and conduct international capital transfers. Additionally, they make sure that all of the member states treat investors equally and without discrimination.

3.3 Asset Classes

An asset can be defined as a resource with economic value that an individual, corporation or country owns or controls with the expectation that it will provide a future benefit such as generating cash flow, reducing expenses, improving sales, etc. (Investopedia, 2020).

It can be thought of as something that can bought or created to increase the value of a firm or benefit its operations.

During investing equities (or stocks) often get the highest share of attention as they are the most well-known and perhaps one of the easier ways to invest in a firm. Although it is the most sought-after way there are however other classes of assets to explore and take notice of.

Depending on one's financial goals, risk tolerance level and timeline a portfolio should be well diversified and should be a combination of all asset classes listed below. It is noteworthy that in the recent years there have been a few additions to the original 5 asset classes due to the advent of new and upcoming technologies such as cryptocurrencies. (Forbes, 2022)

1. Equity (or stocks)

   The fundamental building blocks of investment are stocks. Frequently, you obtain shares of ownership in a public company when you purchase equity in a company. Your shares of stock should appreciate in value as the business expands and generates bigger earnings. In the event that you win these shares, you might even be eligible for dividend payments.

   Equities can be categorised onto 4 different investment options.

   - Growth stocks: These are businesses that are outpacing their counterparts in terms of growth in revenues, cash flow, and earnings.
   - Value stocks: Share prices of absolutely sound and healthy public firms frequently fall far below where they ought to owe to more significant market developments beyond the company's control. A stock is referred to as a value stock when its price is low, yet its business fundamentals are strong.
   - Dividend stocks: Companies that pay dependable dividends are seen as providing shareholders a source of income that is steady.
   - Blue-chip stocks. These are the stocks of large, established public companies that have become well known worldwide even to regular households, names, like Apple,

Disney, and Microsoft. Blue-chip stocks have a proven track record of dependable performance and a history of regular dividend payments.

2. Bonds

   Corporations and governments issue bonds as fixed-income securities to raise capital for funding initiatives. You make a loan to the issuer when you purchase a bond. In return, you receive interest payments from the bond's issuer, and you get your initial investment back when the bond matures. Bonds have smaller returns but are less risky than equities. Bonds lose value as interest rates increase because new bonds offer higher rates. You have two options for purchasing bonds either directly from the issuer or through a brokerage account.

3. Cash Equivalent

   Financial experts don't actually mean literal notes and coins when they refer to cash as an investment. In contrast, cash investments, also known as cash equivalents, are short-term investments that give your investment portfolio stability. A few of the cash equivalent examples are,

   - Money market investments - These mutual funds make investments in corporate or bank debt instruments, tax-exempt municipal bonds, and government bonds.
   - Treasury notes. These short-term investments, also referred to as T-bills, are offered by the governments and have maturities between four and 52 weeks.
   - Certificates of Deposit (CDs). Deposit accounts called CDs typically provide higher interest rates than savings accounts. A few months to several years are the typical terms for CDs, and the money cannot be accessed prior to that time without paying heavy penalties.

4. Mutual Funds and Index Funds

   Mutual funds pool money from investors and invest in groups of stocks, bonds, and other securities. The combined holdings, called portfolios, are managed by experienced financial professionals. Mutual funds can be Stock, balanced or Bond Mutual.

   Compared to individual stocks, mutual funds are low-risk investments. Investing in mutual funds allows you to diversify your portfolio by owning many stocks and other securities at once.

There are thousands of mutual funds out there, but we've identified the best mutual funds to get you started. When you're ready to invest your money, you can buy mutual funds through your brokerage account.

Index funds are a type of passively managed mutual fund that are ideal for long-term investors. While many mutual funds are actively managed by professionals looking to outperform market benchmarks, index funds track the performance of market indices such as the Dow Jones Industrial Average (DJIA) and the S&P 500 intended to be tracked.

Like standard mutual funds, index funds offer diversification because they invest in many companies and industries at the same time. If companies in the fund perform poorly, other companies in the portfolio can make up for the losses. Index funds can be purchased through an employer-sponsored retirement plan or through a brokerage account.

5. Annuities

A contract for an annuity is made between a person and an insurance provider. You can pay the premium for an annuity in monthly installments or all at once. In exchange, the insurance company consents to provide regular payments for a predetermined amount of time. Annuities are frequently used by many people to provide a steady income after retirement.

There are three main annuities.

- Fixed annuity: A fixed annuity guarantees interest for a certain period of time. Once the savings phase is completed, you will receive payments over a period of time. B. 10 to 20 years.
- Variable annuity: Variable annuities do not have a guaranteed interest rate. Interest rates and payments fluctuate depending on the performance of the underlying investment, such as stocks and bonds.
- Index annuity: In an index annuity, interest and payments are based on the performance of an equity market index such as the Nasdaq Composite.

6. Derivatives

   Derivatives are financial products have values based on an underlying asset. Futures, options, and swaps are the three most popular derivatives.

   To speculate on potential price changes or to protect against losses, one can employ derivatives. They may not be a wise choice for the typical retail investor, though, as they are frequently sophisticated and dangerous financial instruments.

7. Cryptocurrencies

   Cryptocurrency is a very new and very volatile form of investment that has been growing since 2018. Bitcoin and Ethereum are the most well-known crypto currencies. They are risky and the prices are open to a lot of fluctuation, and they are not regulated like the other classes. This however may change as governments start taking a higher level of interest and apply regulations to the sector.

3.4 Investment Strategies

The term investment basically means a set of principles designed to help an individual investor achieve their financial and investment goals. These principles are what guide investors in decision making, goals and risk tolerance. They can vary from being low risk favouring wealth protection or can be highly aggressive seeking rapid growth and focusing on capital appreciation.

Investors can use their strategies to formulate their own portfolios or do so through a financial professional. Strategies aren't static, which means they need to be reviewed periodically as circumstances change.

From conservative to aggressive investment techniques exist. Investments with minimal risk and steady returns are used in conservative investing programs. High-risk investments including stocks, options, and junk bonds are used in highly aggressive ones with the aim of maximizing returns.

People who want to conserve their cash are more inclined to take a conservative approach, whilst those who have a longer investing horizon tend to use aggressive approaches. Many investors utilize dollar-cost averaging, reinvest dividends, and purchase low-cost, diversified index funds. With dollar-cost averaging, regardless of cost or share price, a certain dollar amount of stocks or a specific investment is purchased on a regular basis. However, some knowledgeable investors choose certain stocks and assemble a portfolio based on analyses of specific firms and forecasts of share price fluctuations.

3.5 Listed vs Non-Listed companies

There are numerous ways to categorize businesses. A corporation may be split into listed and unlisted firms depending on how its securities are listed. Companies that are listed receive funding from a large number of investors, whereas unlisted companies only have a few. Companies that are listed and unlisted have varying potential for risk and reward. Consequently, being aware of the distinction between listed and unlisted organizations can probably aid you in making wiser financial choices.

A listed company is one whose shares can be purchased leading to ownership that the number of shares represent of a company. The equity or stock of the company is publicly traded on a recognised stock exchange like the NYSE, Nasdaq or LSE.

There are a number of ways to invest in a listed company and some of them are listed below.

- Direct Equity Investment - For the purpose of purchasing stocks in listed firms, you require a trading account. Once you have it, you can use the stock exchange to buy equity shares to acquire a portion of a listed company.
- Mutual Funds - Mutual funds are a different approach to invest in listed stocks. Mutual funds are managed by qualified fund managers, include the pooling of money from numerous investors, and may invest in securities such as equities, bonds, money market instruments, etc.
- Wealth Baskets - Wealth Baskets are created by SEBI-registered experts and are research-supported combinations of stocks and ETFs based on an idea, topic, or strategy.

There are also companies whose securities cannot be purchased through an exchange, they are called unlisted or non-listed. A corporation is considered unlisted if none of its securities are listed on any recognized stock exchange. A public firm is considered to be unlisted if it is not listed on any stock exchange. There are however ways to invest in such companies as well.

- By purchasing ESOPs - Some businesses provide their employees with stock options through an Employee Stock Ownership Plan (ESOP), providing them the possibility to acquire a minimal ownership stake in the business. The employees can be permitted to sell their shares after a period of time determined by the business.
- By Private Placements - Companies occasionally decide to use a private offering to sell shares to a small number of chosen investors. You might be able to connect with firm

promoters from whom you could purchase shares of that company as a private investor with the use of intermediaries like brokers, wealth managers, or investment banks.

- Investing in Pre IPO-Funds - Like mutual funds, pre-IPO funds operate. But they make investments in private businesses that want to go public in three to five years. Investors in these funds could stand to gain a lot if the companies succeed after the IPO.

Point of Difference	Listed Companies	Unlisted Companies
Ownership	Usually owned by several shareholders	Usually owned by a few private investors
Liquidity of Securities	Higher	Lower
Regulatory Requirements	Need to comply with strict guidelines of regulators	May have lesser guidelines to follow
Volatility	Higher Volatility	Relatively lower volatility
Valuation of Securities	Arriving at the market value of securities is easier due to stock prices	Arriving at the exact market value is quite challenging, instead estimated market value is used
Trading	Securities are traded over stock exchanges	Securities are traded in over the counter market
Risks and Returns	Relatively lower risk and lesser chances for exceptional returns	Relatively higher risk, though more chance for exceptional returns.

Table 4: Summarizing the key differences between listed vs unlisted companies. (Wealthdesk.in, 2020)

4. Sustainability

4.1 Overview of Sustainability

Concerns about environmental deterioration led to the early development of the idea of sustainability in the late 1960s. Sustainability is defined as "development that satisfies the requirements of the present without compromising the potential of future generations to satisfy their own needs" by the International Commission on Environment and Development. Sustainability has a variety of connotations. It entails economic success, environmental protection, resource efficiency, and social wellbeing. Typically, environmental protection and preservation, social advancement, and economic success are considered to be the three pillars of sustainability. In order for future generations to have equitable access to these resources through a circular economy, the environmental component strives to avoid climate change, the depletion of the planet's natural resources, and the loss of its biodiversity. Another angle on sustainability is provided by Elkington's triple bottom line or 3P-approach methodology. The terms "profit," "planet," and "people" are all used.

The sustainability idea shares characteristics with corporate social responsibility (CSR), corporate responsibility, corporate social performance, corporate citizenship, and corporate sustainability (Schleich, 2012). They highlight a variety of different behaviours that show responsible behaviour, such as reducing pollution, making use of renewable sources, combatting global warming, protecting the ecosystem, and utilizing technologies that are good for the environment.

4.2 Sustainable Finance

The sustainable finance industry has been expanding on a global scale in recent years. Improvements in terms of openness and adoption of uniform standards are still needed for the practical application of the notion of sustainability in investments. Following such advancements, investors' confidence in such investments will expand.

The practice of considering environmental, social, and governance factors appropriately when making investment decisions in the financial industry is known as sustainable finance. According to the Sustainable Finance Institute of the World Bank, this increases investments over a longer time horizon into sustainable economic activities and projects (SFI).

Decisions in sustainable finance are not simply made from a financial standpoint. Projects strive to be neutral, be mindful not to waste energy and tun efficiently. Such methods reduce the dangers of disasters that could impact all economies worldwide. The governance has to do with executive compensation, employee relations, and management structures.

4.3 EU and the Future of Sustainable Finance

The stability and growth of the financial markets both internationally and within its member states are significantly influenced by the European Union. The European Union is adopting significant measures to incorporate sustainability into its policies and to move to ecologically sustainable growth models as a result of having signed the Paris Climate Agreement and the UN 2030 Agenda for Sustainable Development (Casarsa, Lovera and Asmundo, 2019).

UN 2030 Agenda and its goals for Sustainable Development

For an action to result in environmentally better and more inclusive economies and stronger, more resilient societies, it is crucial to achieve the Sustainable Development Goals (SDGs). "We need to transform the recovery into a real opportunity to do things right for the future," said UN Secretary-General António Guterres. In order to achieve improved environmental and social improvement by 2030, the United Nations approved the Sustainable Development Goals (SDGs) in 2015. On each of the three facets of environmental, social, and economic sustainability, the 17 SDGs are interconnected (ESG).

The primary SDG targets and goals that must be accomplished by 2030 are listed in the table below.

Goal	Facts and Figures	Targets
Goal 7: Affordable and clean energy	Energy is the main cause of climate change, contributing to around 60% of all greenhouse gas emissions worldwide.	By 2030, significantly enhance the proportion of renewable energy in the world's energy mix an also double the global rate of energy efficiency improvement as well as encourage investment in clean energy technology and energy infrastructure"
Goal 11: Sustainable cities and communities	Major cities of a country are the primary point of energy usage using close to 80% of it and an expulsion of close to 70% of greenhouse gases.	Lessen the adverse environmental impact per person of cities by 2030, with a focus on waste management, air quality, and other factors.
Goal 13: Climate Action	For all but one scenario, it seems to be almost certain that, the global temperature would increase by almost 1.5 degree Celsius compared to the previous century.	Include climate change mitigation measures in national planning, strategy, and policies.

Table 5: Goals and Targets set by the UN towards Sustainable Development

4.4 European Union and Sustainable Finance a Timeline

By using sustainable finance, EU projects seek to close the present investment gap. With a broader selection of green projects available to meet the rapidly expanding demand, this will be advantageous for both investors and companies. The main goals are to decouple economic growth from resource use by 2050 and to achieve net zero emissions of greenhouse gases by that time.

4.4.1 Paris Climate Agreement: It's Implementation

A first of its kind the Paris Agreement was the first document that was an enforceable climate change agreement, and it was developed during the Paris climate summit (COP21) in December 2015. In 2016, the EU formally accepted the deal, at which point it came into force. The existing policies and climate neutrality by the end of the century are connected by this agreement.

A worldwide framework is established by the Paris Agreement to prevent dangerous climate change. by keeping global warming far below 2°C and pursuing efforts to keep it below 1.5°C. Moreover, it aims to aid nations in their endeavours and help them strengthen their capacity to combat the consequences of climate change. 2020b (European Commission) (European Commission).

Governments agreed to several goals for the Paris Climate Agreement, including lowering emissions, increasing transparency, preparing for climate change, and decreasing climate change-related losses and damages. Governments recognized the following measures for reducing emissions:

- Keeping the rise in world average temperature to below 2°C over pre-industrial levels throughout the long run.
- limiting the increase to 1.5°C, which would effectively reduce risk and mitigate the effects of climate change.
- Rapid emission reductions using the greatest technologies currently available.

In response to the accord, each government has developed a national climate action plan to assist in achieving the goals set forth in the Paris Climate Agreement. Governments have agreed to arrange recurrent conferences every five years to evaluate the progress of the outlined long-term goals and to update other members and the general public on their contributions and performance through a transparent and accountability driven foundation. The agreement also emphasises the importance of non-Party players, such as cities, local governments, civil society, the commercial sector, etc., in combating climate change. They are urged to step up their efforts to reduce emissions, fortify their ability to withstand climate change, and engage in international cooperation. The UN secretary-general proclaimed a state of climate emergency after the Climate Ambition meeting stated that there was no evidence of a genuine positive output as of December 2020. By the middle of the century, more than 20 countries want to have net-zero greenhouse gas emissions.

4.4.2 The European Green Deal/ Net Zero Program (Strategy for 2050)

The European Commission has created the European Green Deal as part of its long-term strategy and investment plan to become the first continent in the world to be carbon neutral by 2050. (European Commission, 2020a). The European Green Deal seeks to increase the EU's economy's energy and sustainability efficiency. The European Green Deal is a long-term strategy of the European Union (EU) to lower carbon emissions and raise environmental standards across the world. To achieve the necessary goals by (European Commission, 2020a), all economic sectors must work together, invest in environmentally friendly technology, decarbonize the energy sector, improve the energy efficiency of businesses, and collaborate with other nations.

The European Union (EU) pledged to increase the percentage of renewable energy in final energy consumption to 32% by 2030 and to cut greenhouse gas emissions by at least 55% by that time. Companies who reach these goals by 2030 will have saved at least 32.5% on energy compared to the business-as-usual scenario.

4.4.3 Italian Market Overview

About the effects of social and environmental factors on financial markets, it is necessary to clarify the quantitative and practical components of the EU's proposed actions. These factors must take the uniqueness of home markets into account. A scientific characterization of reference scenarios for environmental, social, and governance activities, hazards, and opportunities is also required. Further scientific data on the financial effects and solutions associated to climate threats is still needed, and this is the gap that has to be filled. Such metrics have been included into the decision-making processes at the Bank of Italy. The ESG criterion might still be defined in terms of opportunities and hazards.

5. ESG Investing

ESG Investing: The Entire Timeline

Both institutional and individual investors are increasingly taking social and environmental aspects (ESG) into account when making investment decisions. The concept of ESG investing began in the 1960s as socially responsible investing, where investors excluded firms with ties to unethical acts, such as cigarette manufacture, from their portfolio investment selections.

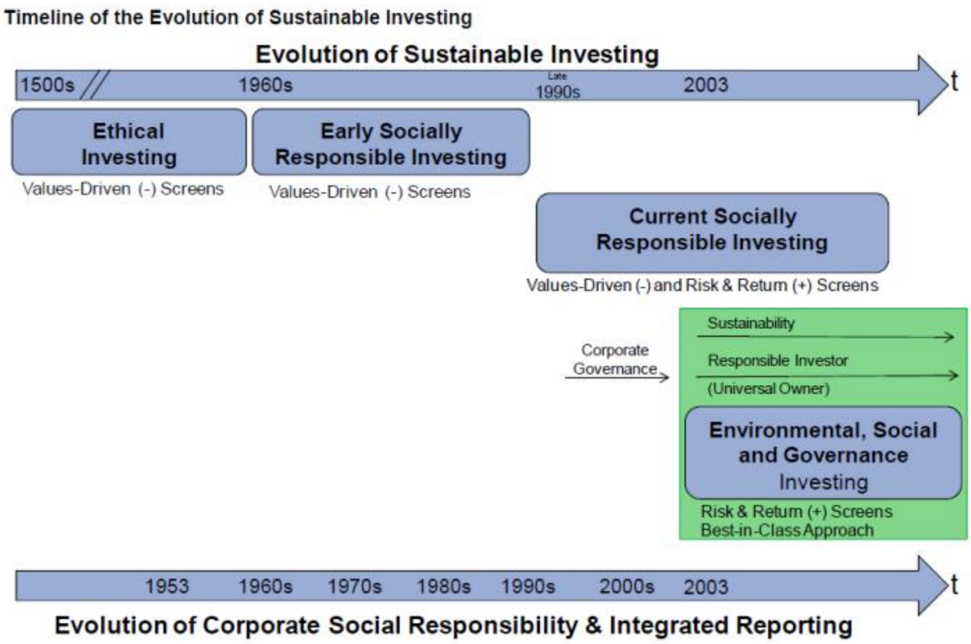

Figure 4: Socially Responsible Investing – A Timeline (DBCCA, 2012)

Using a mid- to long-term investment strategy, a working committee of the Italian Sustainable Investment Forum defined sustainable investments as intended to produce value for investors and society in 2013. According to Vert Asset Management, sustainable investing entails using Environmental, Social, and Governance concerns in addition to financial measures when analysing securities.

The following table provides a summary for the key words that are used in the field of ESG Investing.

Acronym	Meaning of the Term	Source
Sustainable Investment	All types of socially responsible investing and ESG-focused investing are included in sustainable investment. In its most advanced version, it is thought to employ ESG elements in a framework that is best in class and akin to the concept of a Responsible Investor.	(Fulton, Kahn and Sharples, 2012) DBCCA analysis 2012
Ethical Investment	Investing strategy informed by moral principles, ethical standards, or religious convictions. Non-economic factors are used to make investment decisions. This procedure has historically been connected to exclusionary (or negative) screening.	Mercer, 2007
Socially Responsible Investment (SRI)	SRI, as if first emerged, was very similar to ethical investing in that it allowed a level of trade-off between corporate social and financial performance when making investment decisions, and predominantly utilized exclusionary screening. However, modern SRI represents an investment process that seeks to achieve social and environmental objectives alongside financial objectives, utilizing both values-driven, and risk and return screening.	DBCCA analysis 2012, Mercer, 2007
Environmental, Social and Corporate Governance (ESG)	A phrase that has become widely used to express the environmental, social, and corporate governance concerns that investors are considering when analysing business behaviour. Although there is no official list of ESG concerns, they often exhibit one or more of the following traits: (1) A medium- or long-term time perspective. (2) Nonfinancial or Nonmaterial difficulties. (3) Qualitative goals that are difficult to quantify in monetary terms.	Mercer, 2007

	(4) Externalities that are poorly captured by market processes. (5) A shifting regulatory or policy framework; and (6) Patterns that appear across a company's supply chain and (7) Emphasis on the public interest.	
Responsible Investment	The incorporation of ESG elements into ownership and investment management procedures in the expectation that these aspects will have a medium- to long-term impact on financial performance. All asset classes can practice Socially responsible investing (SRI).	Mercer, 2007

Table 6: Key Acronyms used in Sustainable Investing

Why is ESG investing expanding so quickly is a question worth asking. ESG adoption by institutional investors as well as AUM has surged in recent years (USSIF, 2016). While several factors may contribute to this rise, the MSCI investing business focuses on three main ESG investment drivers.

1. Global sustainability issues including climate change, social responsibilities, and strains on governance are introducing new risk elements for investors that weren't there before.
2. In the next 20 to 30 decades, millennials are predicted to invest between $15 and $20 trillion in ESG assets with U.S. domiciles, tripling the size of the equities market. This generation will make many of these investments, with many women in particular.
3. Frameworks and standards on important ESG concerns are becoming more organized, methodical, and referenced as a result of corporate awareness of data, analytics, and greater ESG research.

ESG factors were used to make $8.72 trillion in managed asset decisions in the US alone in 2017. This suggests that investors are taking ESG investment into account more and more. While attempting to lessen the harm done to society and the environment, some see a possible positive in employing profit-minded tactics along with the adoption of more environmentally friendly standards and methods

5.1 ESG Market Worldwide

The ESG market, which has long been considered to be at a turning point, is about to undergo a huge change. ESG investment used to be a niche business, but it is now progressively becoming a trend in the market and expanding quickly. ESG concepts are being incorporated into an increasing number of investment decisions and active ownership practises. It has been growing across every region and asset classe and is eventually anticipated to account for 44% of global AUM according to JP Morgan

According to data from the Global Sustainable Investment Alliance, $30.7 trillion was invested globally at the start of 2018 using SRI methodologies (Casarsa, Lovera and Asmundo, 2019). Investments in sustainability and responsibility increased by 34% in just two years (as opposed to 25.2% during the preceding two years). The majority of investments are made in the United States (39%), followed by Europe (46% of the global SRI market).

ESG-focused funds have a smaller market cap of $1 trillion, or around 2% of the total. The ESG market is primarily based in North America (Canada and the US) and the EU, which together accounted for close to the entirety of the global market in 2018. Europe has long been vocal about its approach to sustainable finance, but NA has slowly started to catch up and is now in competition due to its expanse in interest with ESG.

Also addressed is the growing tendency of incorporating UN SDG considerations into investment strategies and decisions. Asia has long lagged behind the rest of the world in terms of ESG investing, but these days the trend is also catching on, and ESG disclosure laws are being created and enforced. Given that it was one of the first countries in Asia to begin incorporating ESG and establish the Japanese Government Pension Investment Fund in 2015, Japan can be seen as a leader in the region (J.P.Morgan, 2020).

5.2 Italian ESG Market

The Italian market's analysis of sustainable and ethical investment funds (ESG): As was already established, Europe leads the world in the market for sustainable funds, particularly for sustainable passive funds, which accounted for almost 200 Billion dollars as of 2020 June, or almost 2/3 of all sustainable assets worldwide. According to a recent Morningstar research, assets have doubled over the past five years. The next part examines the existing state of the Italian market in relation to the European Union and how it is changing, according to Sustain Advisory, a group of advisors for businesses and investors with expertise in ESG and sustainability (Rabbi, 2020). Sustain Advisory conducted an analysis using data from Assogestioni on almost 300 Italian open-ended sustainable and responsible funds, which promote investing in corporate shares using ESG criteria and, as of June 2020, contained about 60 asset managers with Italian and international backgrounds.

An optimistic expectation for the Italian market has been achieved in recent years, with growth rates that are consistent with European trends, according to the overall analysis.

The number of ESG funds and Assets Under Management both doubled annually in the two most recent years, 2018 and 2019. AUM was 4.6 times greater in June 2020 (rising to 41.5 billion euros) than it was during 2017. The amount of sustainable funds increased by roughly threefold throughout that time. About 21% of the European market is made up of sustainable funds on the Italian market. Despite this, there are just a small number of sustainable funds compared to the overall AUM (around 4% of open-ended fund assets), but they have experienced average growth rates of 80% from 2017 to June 2020.

5.3 Value of ESG Market in the Long Run

The growing trend of business and investor ESG inclusion is not just seen as following morally or socially acceptable practises. Evidence suggests that ESG inclusion can be a sort of a product differentiation strategy, providing a competitive edge for businesses and helping them achieve superior long-term financial success in comparison to their competitors. For every 10 S&P 500 companies, 8 of them now publicly report their results in accordance with environmental, social, and governance criteria, according to the Governance & Accountability Institute.

5.4 ESG vs Conventional Funds

During the past few years, a significant correlation has emerged between ESG integration in organisations, corporate financial performance, and the demand of ESG transparency from investors and stakeholders. The graph below from a study by Harvard Business School demonstrates how ESG integration improves long-term financial performance. It can be inferred from this current as well as other supporting studies and data that, companies that incorporate ESG factors into their portfolios and have a long-term focus on sustainability mostly outperform their non ESG focused peers and that the gap has been widening over the years.

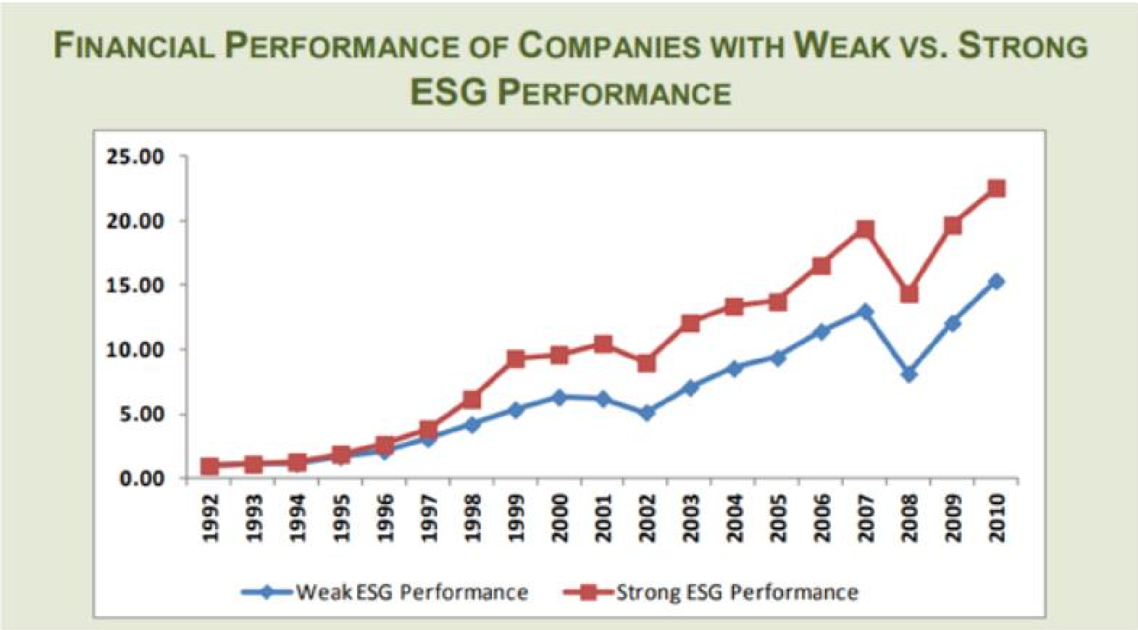

Figure 5: CFP of Companies with Strong vs. Weak Performance in ESG (Harvard, 2020)

5.5 Financial Performance of Equity Class in the ESG Category

Equities or stocks, which accounts for close to 50% of all ESG assets, is the dominating asset type in the ESG market. According to a study by J.P. Morgan, the equity market's current trajectory is positive, with steady increases in ESG product inflows since 2016 (as shown in the graph below), which are the result of the introduction of new funds and the re-allocation of non-ESG funds, as opposed to the general equity market's erratic inflows and outflows.

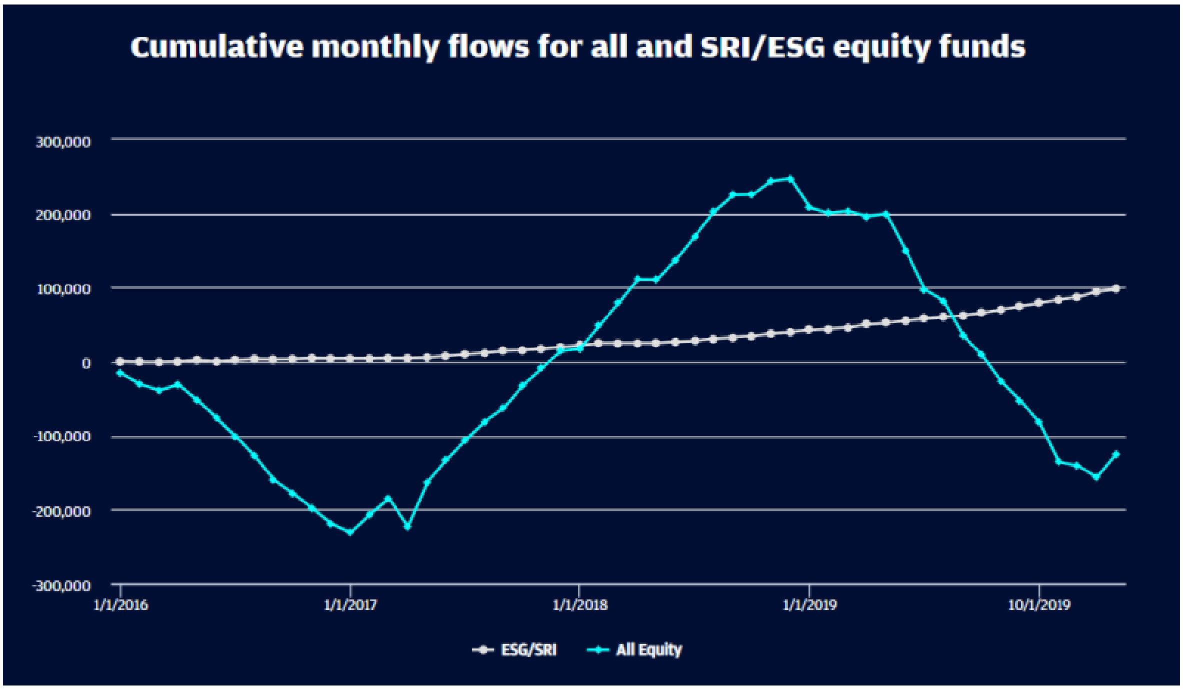

Figure 6: Month by Month Performance of ESG Equity Funds (JP Morgan Chase, 2020)

The Sustainable Accounting Standards Board (SASB) categorizes ESG factors as "material" for each industry because of their major influence on a company's sustainability strategy. After that, investors will be able to examine how ESG influences investments. Any asset class is allowed to report useful outcomes. According to recent Harvard Business School research, investing in businesses that meet the material SASB criteria will produce superior stock returns.

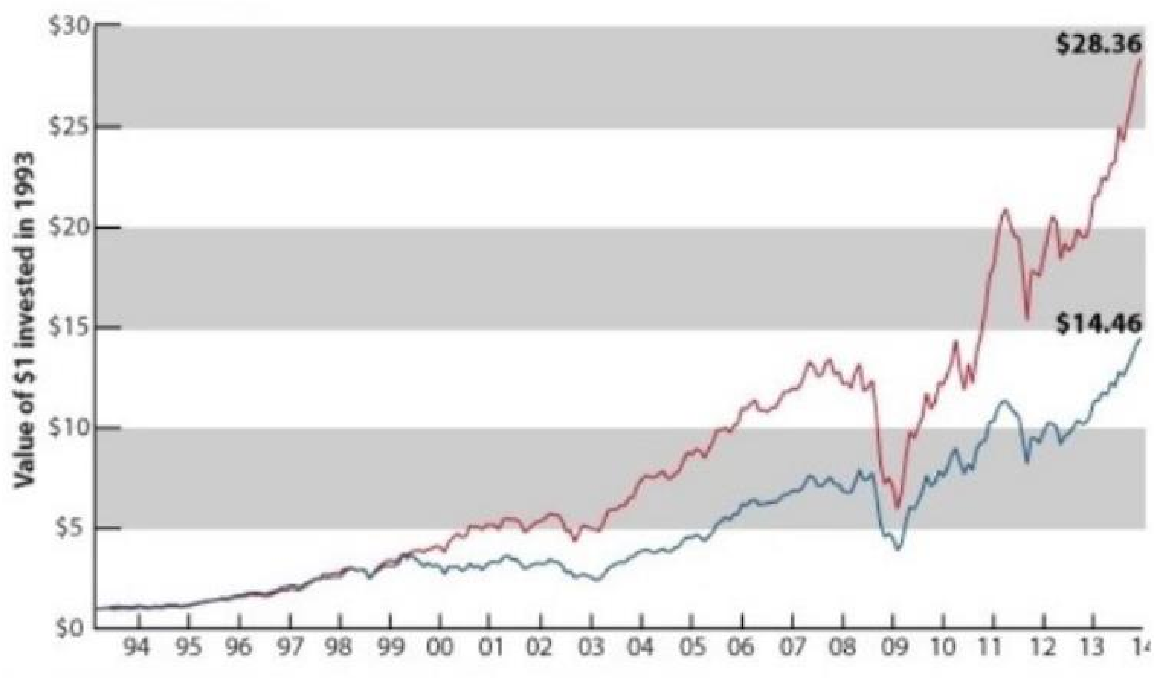

Figure 7: High Scoring ESG Firm Performance (Red) vs. Low Scoring ESG Firm Performance (Blue) School (Khan, Serafeim, Yoon, 2015)

5.6 CFP of ESG and Conventional Funds during Difficult Times (COVID-19)

5.6.1 ESG Before the Pandemic

As previously said, CSR and ESG concerns were already advancing quickly inside investors' strategies and objectives in the corporate investment sector, in all the asset classes, equities and debts included, even before the COVID-19 pandemic problem. There is growing interest in the variables that influence environmental performance of a company which is the E of ESG. According to market demand and trends cited by the CEO of Fabriq, a platform-owning organisation with the objective of raising the asset value of businesses and giving shared data to all concerned parties.

5.6.2 ESG During the Pandemic Crisis

The COVID-19 issue has been dubbed the first "sustainability" crisis of the twenty-first century, reinforcing the importance of addressing climate change and serving as a reminder to investors to consider sustainability when making investment decisions. One of the 125 years' most economically devastating occurrences was the COVID-19 crisis (a period that includes two World Wars, the Great Depression, and the Global Financial Crisis).

The question at hand is whether this epidemic will mark a significant turning point for ESG investing. J.P. Morgan conducted a survey of investors from 50 international institutions, totalling almost 13 trillion $ in assets under management (AUM), to learn how they anticipated COVID-19 might affect ESG investing in the future. The occurrence of a low probability/high impact risk, such as COVID-19, increased awareness and worldwide action to address high impact/high probability risks, such as those related to climate change, according to almost 71% of respondents (J.P.Morgan, 2020).

Exchange Traded Funds (ETFs) that take ESG factors into account have rebounded from the equity market crisis at the beginning of March. The 377 funds that make up Bloomberg's worldwide universe of ETFs with an emphasis on ESG and sustainability have picked up steam. However, investors are now much more cautious, and ETFs with an ESG focus are receiving less money. Investors' flows into such ESG-pro funds fell by almost 66% in Europe during this pandemic and by close to 80% globally. The US is the lone exception; there was a 50% decrease in inflow there at first, but it later returned to its original level.

ESG Performance Continues to Remain Positive

Even if investors have reduced their capital commitments to ESG-themed funds, these funds have so far shown positive performance throughout the crisis. In Bloomberg's worldwide universe of ESG and sustainability ETFs, the Deutsche Bank Research team has finished a study for the four major geographic areas. The analysis was conducted for the US, Europe, Japan, and worldwide markets, each of which has its own index of the top ten ESG funds. The findings revealed a sizable performance differential between US funds and their counterparts in Europe and Japan. The performance of the US ESG funds was proven to be comparable to that of other funds in the larger market. In contrast, after March 2020, ESG funds significantly outperformed in the European example.

The findings demonstrate that ESG is assessed using the same standards as traditional asset classes.

The assumption is that during times of crisis, investors do not factor moral and environmental concerns into their judgements. It should be highlighted that during the March 2020 stock market meltdown, ESG funds either outperformed or shown performance on par with that of their respective benchmarks in all four areas. This supports the claim that rather than accepting underperformance brought on by morally and responsibly made choices, investors are evaluating ESG stocks and funds solely on their financial merits. Positive results for ESG stocks during the pandemic crisis, according to experts at Deutsche Bank, "was a hopeful sign that investors regard a focus on ESG as being a predictor of a stock's financial gains."

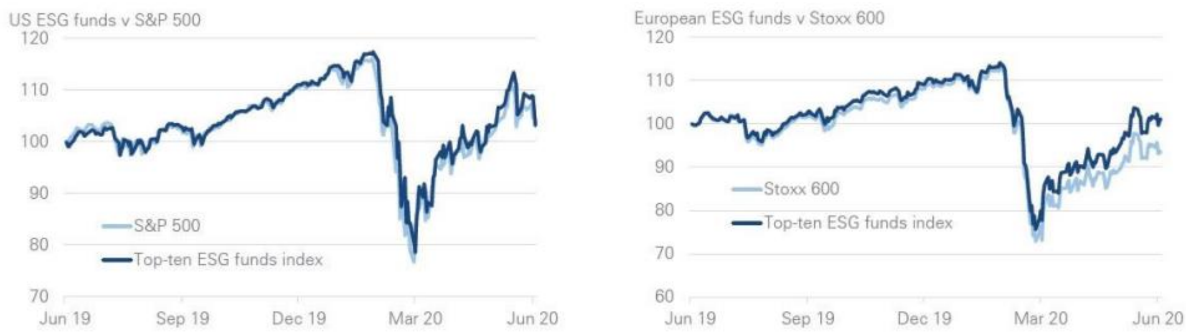

Figure 8: ESG Funds in the US tracking and Diverse Firms in Europe outperforming. (Deutsche Bank, 2020)

Businesses that have adopted an ESG strategy and are recognised by investors and ESG funds have fared better throughout the current financial crisis. Morningstar stated that the MSCI World index fell almost 15% in March, yet 62% of large-cap ESG funds beat the market, according to data from Amundi Asset Management. In the US market, 42 percent of funds (including open-ended funds and ETFs) were rated in the top five percent in their respective categories.

75 ETFs designated as ESG were among the 1,662 ETFs listed on the US market whose investment flows were examined. While considerable sales were observed in traditional equities ETFs following the early phase of the Italian lockout, cumulative flows maintained in an upward trend throughout the duration of the crisis (Pastor et al., 2020; Döttling et al., 2020). In terms of flows and in comparison, to all other types of funds, the graph below demonstrates the upward trend of ESG funds.

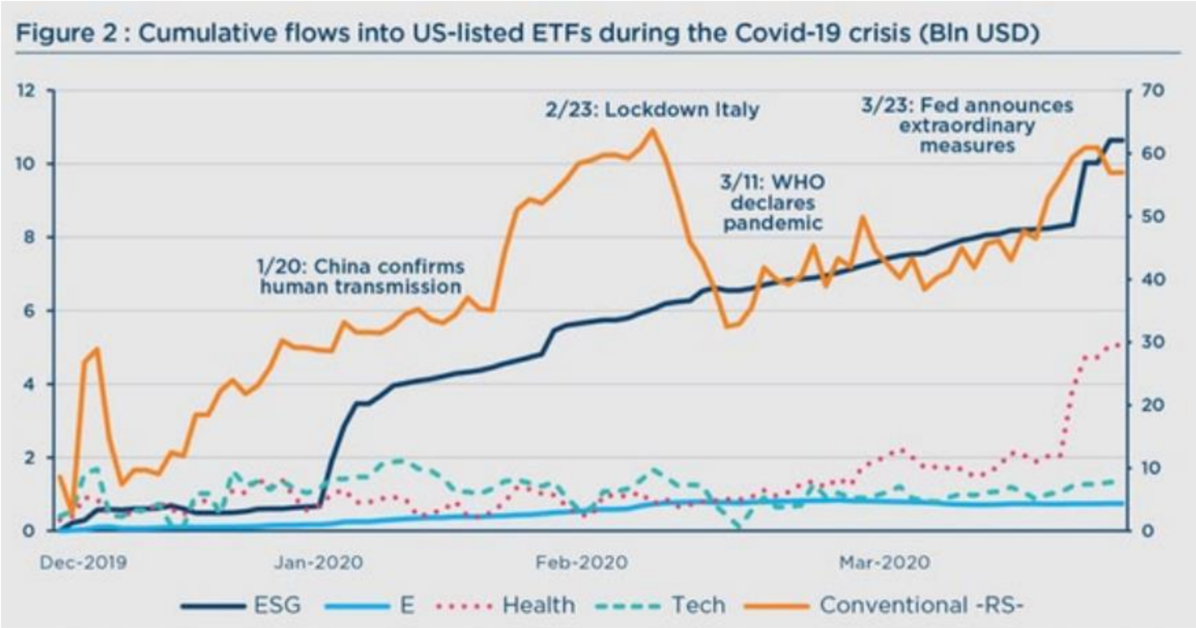

Figure 9: Firms listed in the US performing in the time of the pandemic (Bloomberg, 2020)

Prior to COVID-19, which took place in the midst of the subprime crisis, the concept of ESG funds' resilience had been discussed. A similar scenario has occurred on a lesser scale. According to a research study on the average daily growth rate of ESG funds compared to the conventional funds, the growth rate of the shares in the US-listed companies for ESG equity funds during the subprime crisis was on average 1.7 times higher than for conventional equity funds, whereas it was only 1.3 times higher prior to the crisis. In contrast to the 1.3 times between the two crises, this daily growth rate for ESG funds was 4.6 times higher during the Covid-19 crisis compared to conventional funds (1.28% vs 0.28%). (Briere and Bernadette Barberis, 2020).

There could be a number of reasons why ESG fund flows are resilient. Investors may have believed that ESG funds were "pandemic-proof" on the one hand. Also, the distinction between the traditional and ESG markets enables a variety of investors with differing investment philosophies and aims to organize their portfolios in various ways.

Traditional assets offer greater liquidity and bigger trading volumes, making them suitable for short-term objectives. ESG funds, however, are a better option for achieving long-term investment objectives. Additionally, when an investor makes a responsible investment, they gain positive personal worth, which makes them more likely to maintain their investments in the event of poor performance during a crisis (Brière, Ramelli, and Brière, 2020). The last potential explanation is that investors might think ESG funds are safe investments in equity markets.

The graph below compares the cumulative performance of the equities market and demonstrates how ESG leaders beat ESG laggards in the first quarter of 2020 by making use of total return in two portfolios.

ESG laggards were defined as portfolios of stocks with the lowest ESG ratings, while ESG leaders were defined as portfolios of stocks that had the highest ESG ratings scoring 8 or higher on a scale of 10-points and scoring 2 or lower on a 10-point scale.

Figure 10: Performance of the Equity Market of both ESG Leaders and Laggards (Investment Managers, 2020)

5.6.3 ESG After the Crisis

There are differing opinions on how the pandemic would've affected the applicability and importance of ESG performance in corporate investment. As a matter of fact, many still view good ESG credentials as a requirement rather than an option towards progress, and organisations with excellent ESG performance are seen as having an advantage in the cutthroat sector during the difficult COVID-19 times. It has served as a wake-up call for emerging invisible hazards and provided a crucial foundation for beginning to actively take steps to reduce them because they can no longer be ignored. There is a widespread belief that society should be able to not only recover from this catastrophe but also change for the better as a result of it (Ma, 2020).

Positive change in investor sentiment:

Some sources claim that investors have decreased their ESG fund investments between April 2020 and July 2020. However, a review of the 2020 investor survey by the Global Impact Investing Network, that was performed during the crisis, reveals that overall investors will boost their ESG investments by 2% this year. This represents a considerable decline from previous year, when investors were anticipating an increase in ESG investments of 13%, a far larger forecast. Only close to 50% of investors had decided to continue their ongoing activity during 2020. 15% of respondents said they planned to increase their issuance as of July 2020, while 20% said they would decrease it. (Deutsche Bank, 2020).

What effects do you think the COVID-19 issue will have on the momentum of ESG investing in the next three years? was the question posed to investors in a J.P. Morgan poll (J.P. Morgan, 2020). The majority of survey respondents (55%) believe that ESG will operate as a positive catalyst over the next three years as a result of their awareness of the long-term sustainability risks. 18% of investors estimate a neutral effect, while 27% predict a negative impact. By looking at the graph we can see that the notion of investors are primarily concerned with immediate economic results isn't true. This outcome can be explained since the study used a three-year expectation rather than the current situation. Investors are aware that there are times when a short-term negative impact is expected rather than a long-term beneficial one.

6. Practical Overview

Despite the various regulations that have been mandated by the UN as well as due to agreements from international conferences there are still a few companies who have failed to take sustainability into account. Although due to the pandemic and the last years of economic slowdown the best ESG companies have stayed committed to good ESG practices and as seen from the previous section they have had benefiting results from adhering to strict ESG measures.

Companies in the EU have had a prosperous year and have performed the best in the past year regarding ESG criteria according to scores from Refinitiv and Sustainalytics with 33 out of the global top 50 companies being from the EU. However, regions like SEA and even some parts of the United States showed a regress in ESG ratings.

This part of the thesis will aim at extending the theoretical framework obtained from the previous two section into analysing the market and accounting financial indicators to four companies that include 2 with that of a good ESG score and 2 with bad ones.

The 4 companies that are studied are,

1. EchoStar Corp
2. Wells Fargo & Company
3. AT&T
4. JP Morgan Chase

2 companies compared were from the sector of communications and technology and the other two from banking and finance for the reasons of looking into more than one sector as well as comparing companies that compete with each other in the same market.

6.1 EchoStar Corp Portfolio Overview

Through its Hughes Network Systems and EchoStar Satellite Services business areas, the American corporation EchoStar Corporation offers satellite communication and Internet services to customers all over the world. Unincorporated Arapahoe County, Colorado, serves as the home base for EchoStar.

EchoStar was first established in 1980 as a distributor of C band TV equipment by its chairman Charles Ergen. It submitted a direct broadcast satellite (DBS) license application to the Federal Communications Commission in 1987, and in 1992, the FCC authorized it to use orbital slot 119° west longitude.

As of 2022 EchoStar has a revenue of $2 Billion and an income of $50 Million generated mostly through their satellite network over the region of North and Latin America.

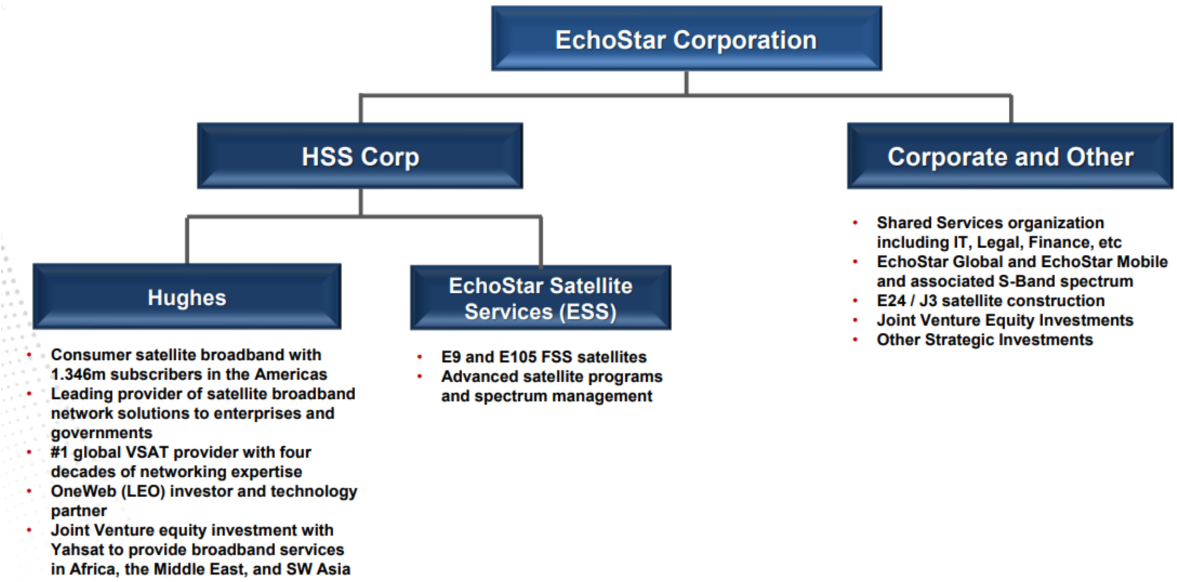

Figure 11: EchoStar Corp Portfolio, (EchoStar Corporation Investor Overview, 2022)

6.1.1 Sustainability of the company

EchoStar combines a really weak ESG score with a relatively low degree of transparency of ESG details from the company. According to ESG scores from Refinitiv, EchoStar is right at the bottom of the list being ranked 115 out of the 126 companies in this segment with the social rights being their weakest segment scoring only 19 out of a 100 and the governance sector scoring a 26. Sustainalytics handed them a risk rating of 22.0 worldwide which puts them in the category of medium to high risk for investors.

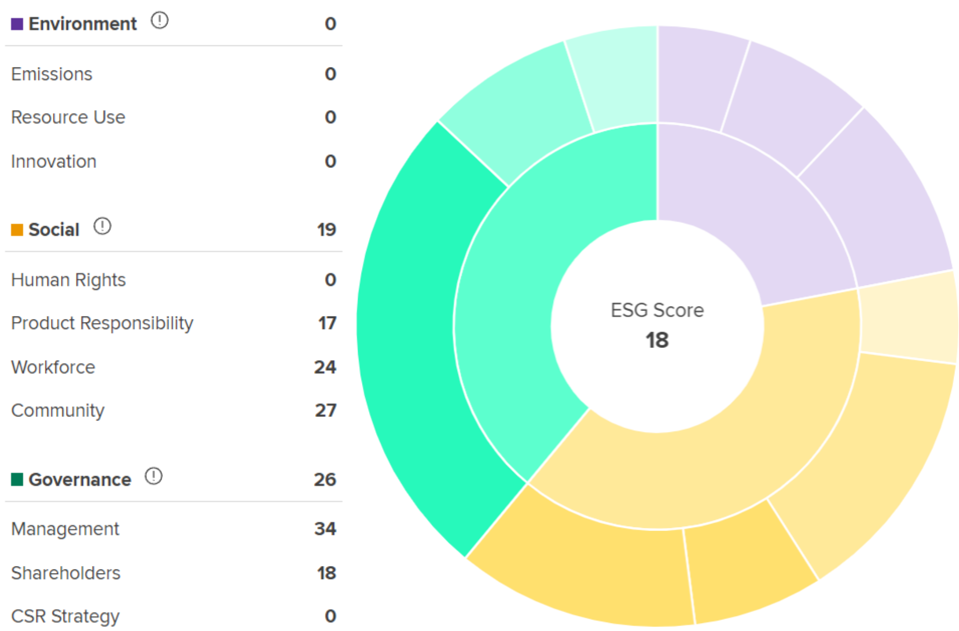

Figure 12: ESG Score for EchoStar, 2022 (Refinitiv)

6.2 Wells Fargo and Company Portfolio Overview

In addition to offering consumer and commercial finance products and services domestically and abroad, Wells Fargo & Company is a diversified financial services provider. Consumer banking and lending, commercial banking, corporate and investment banking, and wealth and investment management make up its four operating segments. For consumers and small businesses, the Consumer Banking and Lending section provides a variety of financial products and services. Checking and savings accounts, credit and debit cards, loans for homes, cars, people, and small businesses are among its financial goods and services. The commercial banking category offers private, family-owned, and some publicly traded businesses financial solutions.

Treasury management services, banking and credit products for various corporate sectors and municipalities and secured lending and leasing of products are some of its goods and services. The Corporate and Investment Banking division offers a range of capital markets, banking, and financial products and services to corporate, commercial REI, government, and institutional clients. Its products and services include corporate banking, investment banking, treasury management, loans and servicing for commercial real estate, stocks, and fixed income solutions, as well as sales, trading, and research capacity services.

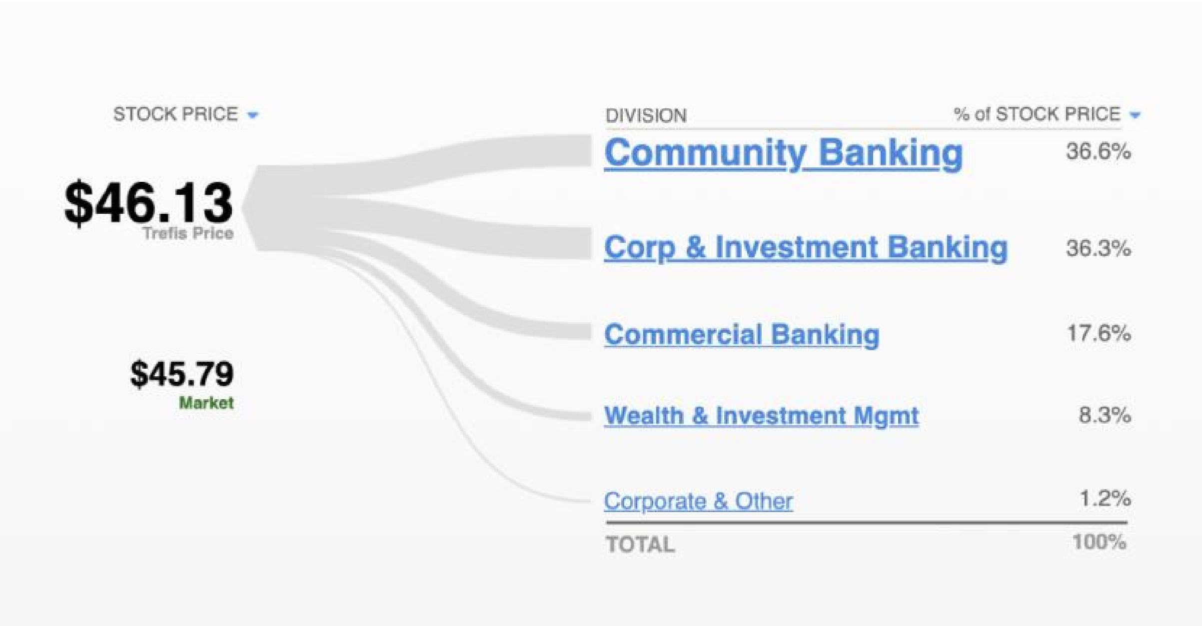

Figure 13: Wells Fargo & Co. Portfolio (Trefis.com)

6.2.1 Sustainability of the company

Although Wells Fargo is rated well according to scores from Refinitv, this might paint a false picture. This is because, it has recently been under some scrutiny for bribing government officials and having paid off top brass to falsely claim the financial targets that haven't been met. In addition to this they have had questions raised about their auditing methods and their discrimination against the minorities in lending and loan procedures. They have also been accused of anti-competitive behaviour as well as violations in the workspace.

All these governance and social issues have led them to have an extremely high-risk rating for investors with Sofina SA rating them an absurd 31.5 holding them in a category of high-extreme risk for ESG concerned investors. They were ranked 728/979 in the banking segment which for a company that has a $trillion revenue can be deemed unacceptable.

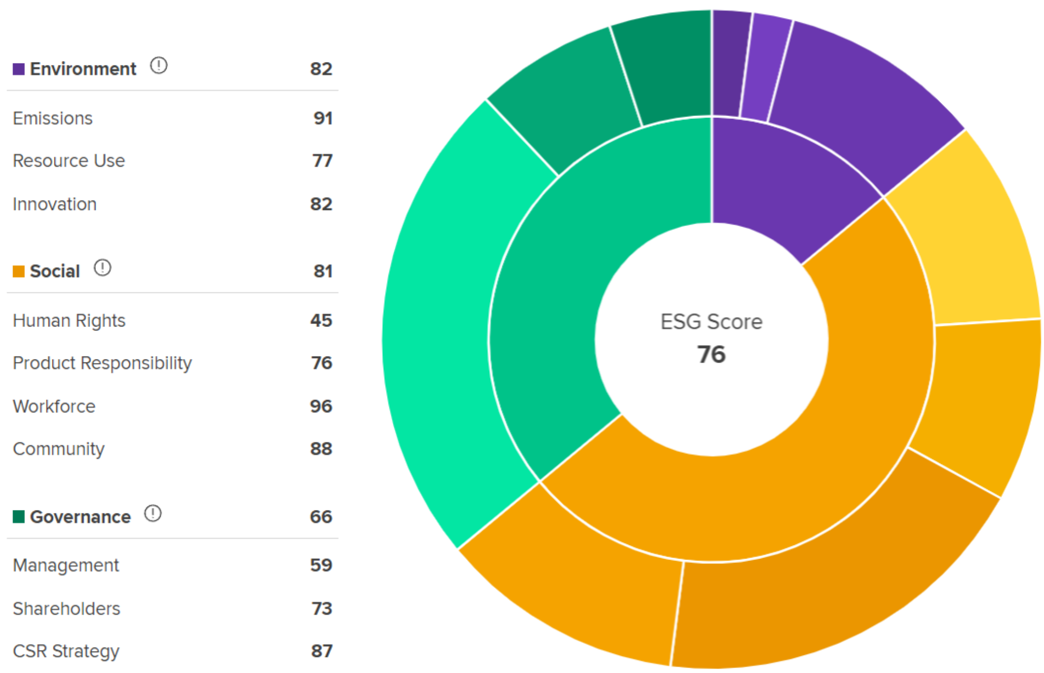

Figure 14: ESG score for Wells Fargo & Co., 2022 (Refinitiv)

6.3 JP Morgan Chase Portfolio Overview

JPMorgan Chase & Co. is a Delaware-incorporated, New York City-based international financial services business. By market capitalization, it is the biggest bank in the US and the biggest bank globally (as of 2023). The Financial Stability Board views the company as having systemic importance because it is the largest of the Big Four banks. Due to its size and scope, there is now better regulatory scrutiny and an internal "Fortress Balance Sheet" as well as liquidity reserves. JP Morgan Chase & Co.'s most recent SEC filings show that they have reported a total of 6,434 holdings. The estimated value of the most current portfolio is $0.6 trillion. This valuation plus cash is known as actual assets under management (AUM) (which is not disclosed). Microsoft Corporation, SPDR S&P 500 ETF Trust, Apple Inc., Amazon.com, Inc, and UnitedHealth Group Inc. are among JP Morgan Chase & Co.'s top holdings. JP Morgan BetaBuilders Canada ETF, iShares S&P 100 ETF, Liberty Broadband Corp, iShares S&P 100 ETF, and iShares S&P 100 ETF are among the new holdings of JPMorgan Chase & Co. Fishing, hunting, and trapping, agriculture production, and livestock and animal specialty are JP Morgan Chase & Co.'s top three industries.

Figure 15: JP Morgan Chase Investment Portfolio Overview (JP Morgan Chase CIO, 2022)

6.3.1 Sustainability of the company

JP Morgan has outstanding ESG scores and is very transparent about their ESG disclosures and the action they take towards sustainability. They are one of the most vocal banking organisations about climate change and have always had a foot forward when it comes to taking an initiative. According to their annual reports JP Morgan has spent close to $2.5 trillion on the span of the last 10 years to address the issue and towards carbon neutrality as well as $30 billion towards social causes regarding racial inequality and promoting inclusive growth. Due to these and their long-standing transparency of these criteria they're ranked in the global top 50 ESG scores for banking sectors ranking 29/1097.

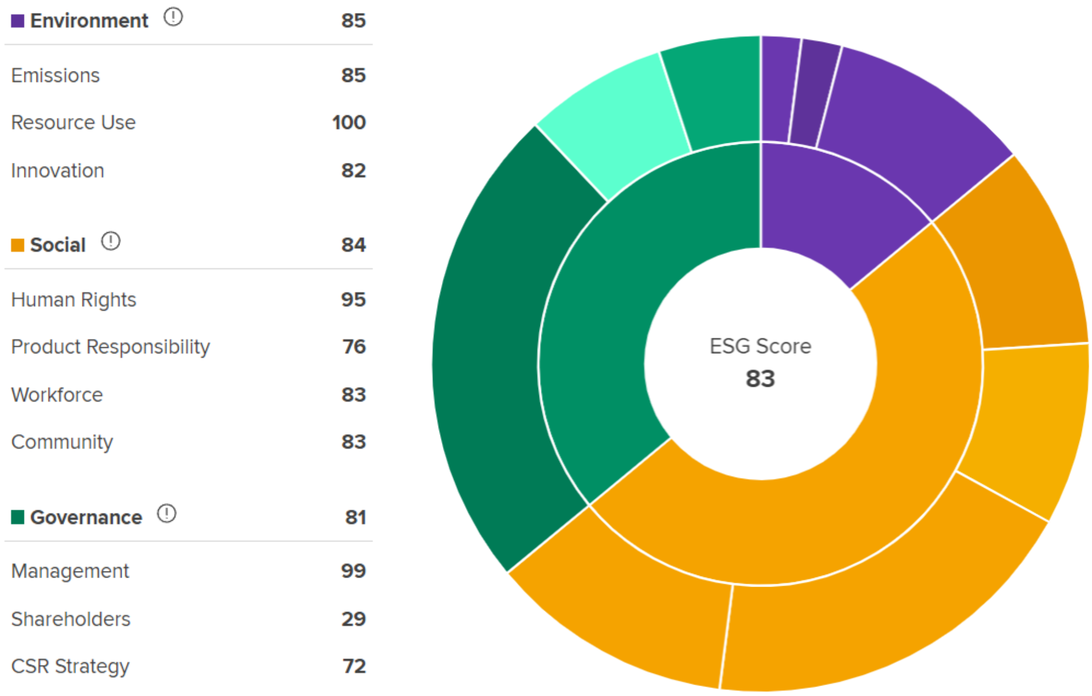

Figure 16: ESG Score for JP Morgan Chase, 2022 (Refinitiv)

6.4 AT&T Portfolio Overview

An international telecommunication holding corporation with its headquarters in Downtown Dallas, Texas, is AT&T Inc. It is the third largest supplier of mobile telephone services in the United States and the largest telecommunications corporation in the world by revenue. With $168.8 billion in revenue as of 2022, AT&T was the thirteenth-largest American firm according to the Fortune 500 list. It operates in four main business segments that include communications, Warner Media, Latin America and Xandr (Advertising & Analytics). Some of its major brands and subsidiaries include AT&T Communications (Wireless, broadband, and TV services), Warner Bros. (Entertainment), HBO (Premium television network), DirecTV (Satellite television), and Turner Broadcasting System (Media networks and news organizations). AT&T also has a significant presence in the advertising and analytics industry through its subsidiary Xandr.

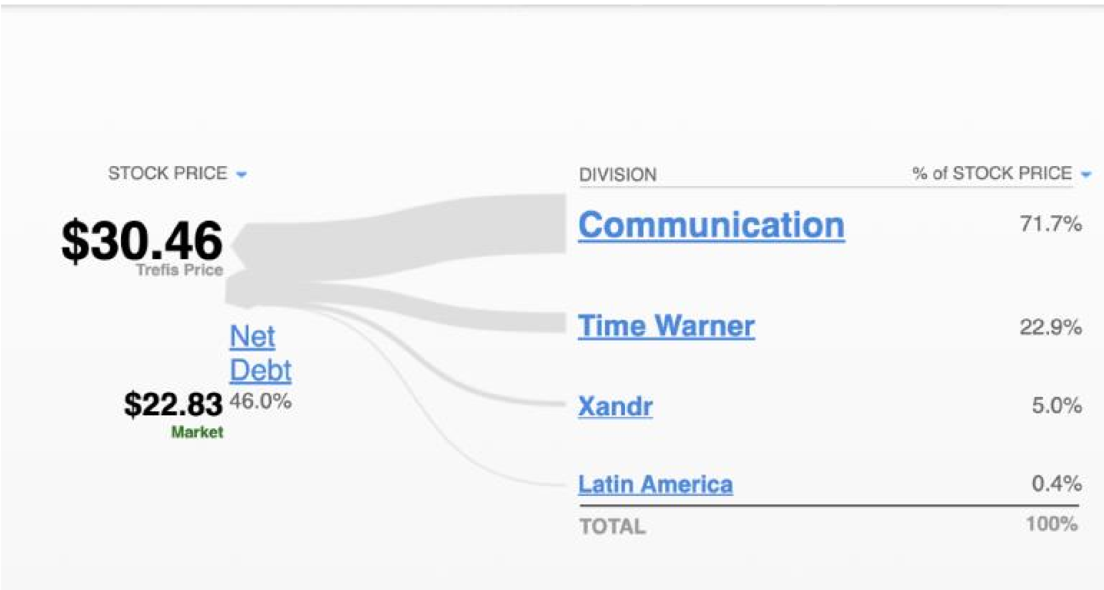

Figure 17: AT&T Portfolio 2022, (Trefis.com)

6.4.1 Sustainability of the company

AT&T has a comprehensive Environmental, Social, and Governance (ESG) strategy aimed at promoting sustainability and social responsibility in its operations and business practices. The company has set several ESG goals, including reducing its carbon footprint, promoting diversity and inclusion, and supporting local communities through philanthropy and volunteerism.

In terms of the environment, AT&T has set a goal to be carbon neutral by 2035 and has implemented several initiatives to reduce its energy consumption and greenhouse gas emissions, including upgrading its network infrastructure and investing in renewable energy sources. With regards to social responsibility, AT&T has a strong commitment to diversity, equity, and inclusion, and has implemented programs to support underrepresented communities and promote diversity in its workforce and supplier base. The company also has a long-standing tradition of philanthropy, supporting various non-profit organizations and causes through its AT&T Foundation. In terms of governance, AT&T has a robust system of corporate governance and risk management practices in place, with a focus on transparency, accountability, and ethical behaviour. The company regularly reports on its ESG performance and progress towards its goals, providing stakeholders with a clear picture of its commitment to sustainability and social responsibility.

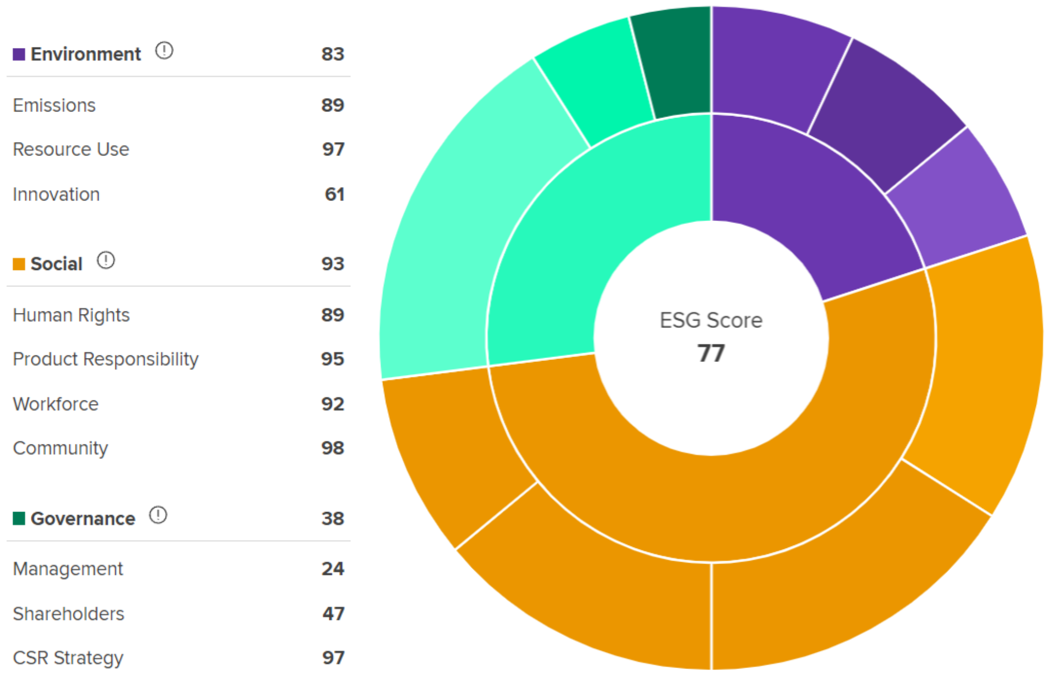

Figure 18: ESG scores for AT&T, 2022 (Refinitiv)

6.5 Comparing financial metrics of the four companies.

Numerous metrics and methods can be used to evaluate the financial performance of firms. The following section includes a few of the financial performance metrics that were primarily examined in earlier academic research and determined to have some kind of meaningful relationship with environmental performance. The indicators can be divided into two categories: accounting-based and market-based, each of which provides a list of indicators that can be utilized for evaluation.

1. Market based performance.
   - Tobin's Q: Tobin's Q, sometimes referred to as the Q ratio, is calculated by the ratio of a company's market value by the replacement cost of its assets. Equilibrium thus occurs when market value and replacement cost are equal. The Tobin Q approach can be used to determine whether a certain company or market is overpriced or undervalued. (Investopedia, 2022)
     - A low Q ratio, which ranges from 0 to 1, indicates that a company's stock value would have to be higher than the cost of replacing its assets. The stock is therefore undervalued. On the other hand, a high Q ratio (> than 1) suggests that a company's stock is overvalued because it is more expensive than the replacement cost of its assets.
   - Price to Earnings Ratio: The price-to-earnings ratio (P/E ratio) is a ratio used to determine the value of a company by comparing its current share price to its earnings per share (EPS). P/E ratios are used to assess a company's performance in light of its prior performance as well as the performance of general markets over time or in relation to one another. If a company's share price appropriately reflects its expected profits per share, analysts and investors look at the P/E ratio.
   - Stock Price: The stock price is also used as a market-based performance indicator and can be used to better understand the value of the underlying stock.

2. Accounting based performance.
   - Return on Assets (ROA): ROA is a measure of a company's profitability in relation to its total assets. ROA gives a sense of how effectively a company's management uses its resources to produce profits. When calculating ROA, divide net income of a corporation divided by total assets.
   - Return on Equity (ROE): ROE, or Return on Equity, is a financial metric that measures a company's ability to generate profit from its shareholder equity. It's calculated by dividing the net income by the shareholder equity and is expressed as a percentage.
   - Return on Investment (ROI): Return on Investment (ROI) is a financial metric that measures the profitability of an investment as a percentage of the initial investment. It's calculated by dividing the net profit or net gain of an investment by the initial investment cost and is expressed as a percentage.
   - Earnings per Share (EPS): Earnings per share (EPS) is a financial metric that represents the portion of a company's profit that is allocated to each outstanding share of its stock. It's calculated by dividing the net income by the number of outstanding shares of the company's stock.

The table below analyses the above-mentioned metrics for the 4 companies that were mentioned in the overview.

Financial Indicator	EchoStar Corp	Wells Fargo & Co.	AT&T	JP Morgan Chase
Market Performance Indicators				
P/E ratio	30.42	22.56	22.73	12.25
Stock Price	$29.60	$44.47	$123.43	$123.43
Earnings/ Share	0.27	3.434	1.124	11.21
Tobin's Q	0.335	0.0184	0.6381	0.0431
Accounting Performance Indicators				
Return on Assets	0.63	0.83	1.50	1.19
Return on Equity	1.49	9.48	4.45	15.04
Return on Investment	0.69	3.87	2.19	5.88

Table 7: Market and Accounting Performance Indicators (Author's take with the help of Y Stats and Yahoo Finance for the year, 2022)

Analysis of the results: Upon comparing it is clearly seen that the company with better ESG rating and more a sustainable approach in both categories has favourable results both in terms of Marketing and Accounting indicators, when compared using the data of the previous year. This stands hand in hand with the summary of the literature review where the research and papers all leaned on a similar analysis saying that ESG ratings are positively correlated to CFP of a company.

Conclusion

The thesis' major goal was to bridge the gap between investors and corporations in regard to the incorporation of ESG factors into portfolios and the capacity to recognize actual long-term financial values.

This was achieved by presenting a review of the literature outlining the history and state of the research on the relationship between the incorporation of sustainability or ESG factors and corporate financial performance. It might be said that this topic's research is still being done and that it only yields flimsy results.

The majority of the data, however, show a positive correlation between the two concepts and motivate researchers and analysts to carry out further, in-depth research on various asset classes and ESG sub-criteria. The majority of research show a significantly favourable association between ecologically efficient corporate portfolios and considerable financial performance of the business, whether considered from the standpoint of market-based values or operational considerations.

The second part of the thesis provides a theoretical foundation for the concept of ESG investing, which is gaining importance in today's society. At the end of this section, a framework for creating a sustainable portfolio and instructions on how to report ESG data are offered. The minimum disclosure standards set by authorities and global conventions are included thanks to this framework.

A comparison of the four firms is completed in the thesis' last section. Two of these portfolios, take ESG commitment into account, whereas the other two do not. A financial viewpoint and a greenness perspective are both used to complete the comparison. ESG disclosure (transparency), third-party evaluation, E score (Refinitiv), the proportion of certified assets in the portfolio and their overall commitment to sustainability are all viewed here. The correlation between ESG factors and the financial success of the portfolios of the four firms supports the conclusions of earlier scholarly investigations. It is clear from the precise metrics such as stock price, P/E ratio, ROA, and ROE that the two ESG firms outperform conventional companies that don't include sustainability activities in their portfolios. They also outperform conventional companies on enhanced long-term stock performance and returns.

The results of this thesis can demonstrate that, based on the firms, the integration of environmental activities into the portfolio assets, based on the aforementioned indicators and the use of proper ESG planning, can close the gap between investors' ESG asks and requests and companies' compliances in terms of adequate systematic evidence.

Furthermore, it can be said that ESG firms offer a good outlook on decreasing environmental and climatic risks while also giving investors and corporations the necessary value for their portfolios and higher long-term returns.

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